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THEY MAKE A TEAM — Dr. George C. Royal and Dr. Gladys W. Royal, husband and wife scientists, are involved in research on "Biochemical and Immunological Comparisons of Irradiated Mice and Rats Treated with Bone Marrow," a project sponsored by the Atomic Energy Commission, at A and T College, Greensboro, N.C.

Husband-wife team's project draws international interest

GREENSBORO, N.C.—A husband-wife team at A and T College is hard at work on a research project, success in which could significantly alter medical treatment for a number of human ailments.

Their findings are exciting national and international attention.

The project, "Biochemical and Immunological Comparisons of Irradiated Mice and Rats Treated with Bone Marrow Transplants," is being conducted by Dr. George C. Royal, professor of bacteriology and project director and his wife, Dr. Gladys W. Royal, professor of chemistry and associate director for the project.

* * *

THE TITLE of the project sounds complicated, but these young and dedicated scientists make their aims and objectives clear and simple enough.

While rats and mice are being used in the experiments, they believe that what they discover will also be applicable to humans.

The Royals' project, sponsored by the Atomic Energy Commission, could open a brand new vista of thought toward the treatment of certain type cases of cancer and of animals exposed to overdoses of radiation.

* * *

ALREADY, complete recovery of deep cancer cases may be accomplished by high dosages of radiation, but such treatment often damages severely, bone marrow tissue, the primary blood forming mechanism of the body.

If these damaged tissues could be replaced by compatible bone marrow transplants the latter ill effects might be corrected. The result — a well patient. The same good results could be accomplished in those who have been exposed, accidentally, to radiation.

* * *

WORKING FROM two basic inferences, (1), that selected bone marrow could be used to protect animals which have been exposed to injurious doses of radiation, and (2), that if the bone marrow transplant is not of the right type (foreign), the treatment, itself, might prove fatal, they seek to find, both, the difference and similarity of bone marrow material and also to find if foreign bone marrow can be made compatible.

They are in search of a solution to one of the same general problems encountered when blood transfusions were first given which was licked when ways and means of typing blood were discovered.

"If we can learn to 'type' bone marrow," say the Royals, "we will have made a lot of progress."

* * *

BOTH PROJECTS have excited national and international attention of other colleges and universities, hospitals, research institutes and scientific societies. Requests for copies of the published articles produced by the two teams have come from as far away as Australia and New Zealand, from behind the iron and bamboo curtains, practically every country in Europe and nearly every state in this country.

The Drs. Royal presented their newest findings before the Fifth International Congress on Nutrition in Washington over the weekend.

Dr. George Royal was also invited to appear before the International Congress of Histochemistry and Cytochemistry in Paris.

* * *

THE ROYALS have three children: George III, 11; Geraldine, 3 and Guerick, 1.

He is a graduate of Tuskegee Institute, holds the Master of Science degree from the University of Wisconsin, had pre-doctoral work at Ohio State University and procured the Ph.D. degree from the University of Pennsylvania under study as a U.S. Public Health research fellow.

A native of Williamston, S.C., he joined the A and T faculty in 1952.

Mrs. Royal, a native of Dallas, Texas, is a graduate of Dillard University, holds the master's degree from Tuskegee Institute, did pre-doctoral work at the University of Wisconsin and was awarded the Ph.D. degree by Ohio State University. She came to A and T College in 1953.

Learning Math And Chemistry

Gaining advanced knowledge of chemistry at the Summer Secondary Student Program in Chemistry and Mathematics at Fisk University were these high school students selected from across the country for special six-week course. Supervising an experiment in the analysis of lobelia oil is Dr. I. Wesley Elliot. Fisk chemistry professor, left.

Students, left to right, are: Scott Goins of Stuyvesant High School, Flushing, N. Y.; Alfreda Wooten of Hamilton High School, Memphis, Tenn.; Antoinette Bowler of Booker T. Washington High School, Norfolk, Va.; and Prentice Thompson of Booker T. Washington High School, Tulsa, Okla.

NOT AT ALL concerned about the big words involved in the experiment, "Cannizzaro Reaction As an Electrochemical Process," two high school students who attended the 1960 Summer Secondary Science Student Program in Chemistry and Mathematics at Fisk University are engrossed in the problem. Left to right are Thearthur Little of East Technical high school, Cleveland; Leroy Murray of Washington, D. C., Fisk graduate student who is supervising the experiment; and Tom Krall of Central Catholic high school, Toledo.

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P.10
Afro American
Sat. 9-17-60
Baltimore, Md.
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THEY'RE A TEAM—The Edwardses, Dr. Gerald A., left, and Dr. Cecile, are a husband - wife research team at A. and T. College, as well as co-authors on 20 papers presented before scientific societies, four of which have been published in scientific journals.

Drs. Gerald, Cecile Edward, scientists, also co-authors

Afro American
Baltimore, Md.
Sat. 9-17-60

GREENSBORO, N.C. — The Edwardses, Dr. Gerald A. and Dr. Cecile, husband - wife team at A and T College, are not only research scientists working together on the same project, but collaborating authors.

The project in which they are presently engaged, "Utilization of Methionine by the Adult Rat," is being sponsored by the National Institutes of Health. It seeks to find how methionine, one of the important components of protein, is actually used by animals.

The project is strictly exploratory and does not aim to discover practical, medical applications. The two scientists seek to find out everything they can on the breakdown and use of methionine in body processes.

* * *

THE EDWARDSES feel that the information being procured might, however, be used some day to arrive at newer approaches in medical treatment. Here is one example. It has already been determined that methionine has outstanding qualities in helping to repair, speedily, damaged body tissues.

With full knowledge on the need for methionine and how it is used in the body, the two Drs. Edwardses are in agreement that it could be used to speed recovery of humans following surgery and believe that there might be other important medical applications to follow.

* * *

THE EDWARDSES are also co-authors of twenty papers presented before scientific societies, four of which have been published in full length, and the others in abstract form, in the leading scientific journals.

While deeply engrossed in their work, the couple lives a perfectly normal life, and agree that some of their best thinking and study is done at home.

They have two children, Gerald, 5 and Adrienne, 2. Dr. Gerald Edwards, a native of Durham, N.C., is a graduate of North Carolina College and holds the Ph.D degree from the University of Buffalo.

Mrs. Edwards has BS and MS degrees from Tuskegee Institute and the Ph.D. degree from Iowa State University. The two came to A and T in 1956.

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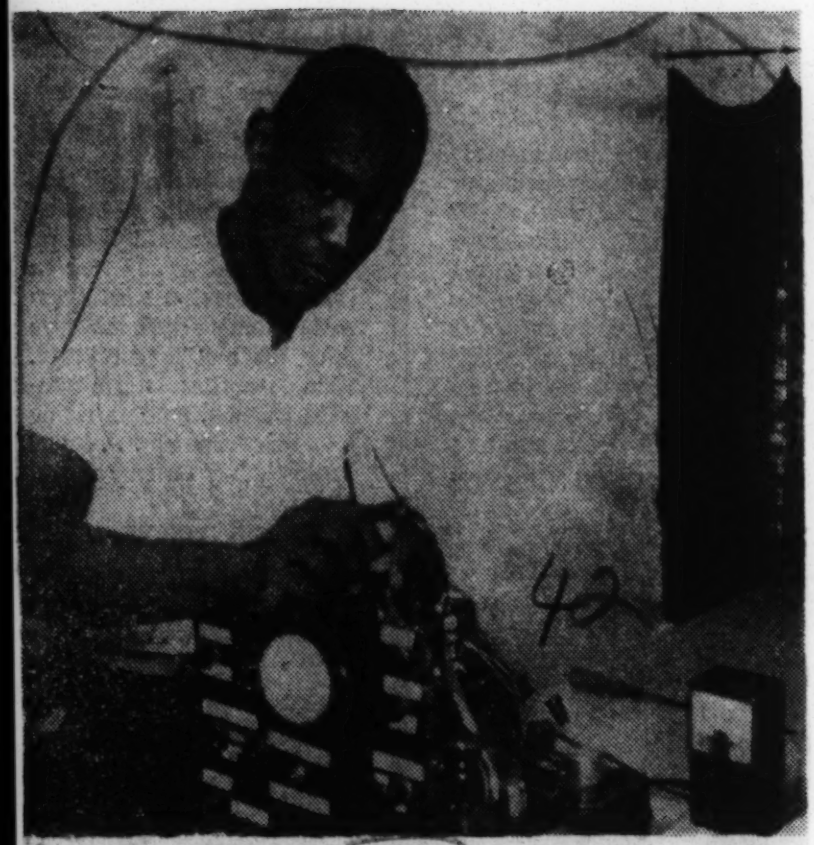

TALENTED TEEN-AGE SCIENTIST. — John Davis Smith of East Orange, N. J., placed first in the mathematics division of the Greater Newark Science Fair and was named as a delegate to the National Youth Conference on the Atom to be held October 20-22 in Chicago. He is being sponsored to the conference by the Public Service Electric and Gas company of Newark. He will be one of the two talented Negro teen-agers at the conference. The other is Robert L. Mark of Philadelphia. They will join other youths from 38 states in studying the peaceful uses of the atom.

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SU Professor Is Honored As Top Scientist

The Louisiana Weekly
New Orleans, La.
2-27-60
Pg. 4 Col. 2

Baton Rouge, La.—Dr. Edward E. Johnson, professor of Psychology at Southern University, has been named a Fellow and elected to membership in the American Association for the Advancement of Science, it has been announced by Dr. Dael Wolfle, executive officer of the august National Organization.

The honor, which came to the Southern University professor, according to the communication, was in "recognition of your standing as a scientist."

Dr. Johnson, a native of Jamaica, received the B. S. and M. S. degrees from Howard University and the Ph. D. from the University of Colorado, where upon graduation he continued in the Colorado institution in the capacity of a staff member, Biological Science.

Atlanta, Ga.
Sat. 2-27-60
Pg. 1
42

FROM FAR AWAY ETHIOPIA—Telcon Delnassahou, director general of the Ministry of Agriculture in Ethiopia, Africa, last week visited at A. and T. College. Dr. Gladys Royal, professor of chemistry, explains a research project she and her husband, Dr. George Royal, are conducting for the United States Atomic Energy Commission.

Find New Drugs In Wild Life

Chicago Defender
Chicago, Ill.
2-27-60
Pg. 21

Three Negro researchers of the U. S. Department of Agriculture were honored recently as part of a team of 16 who have found in wild plants new sources of cortisone and other hormone drugs used in the treatment of arthritis and other ailments.

The three colored researchers are Harry A. Monroe, a chemist; and Robert O. Pierce and Walter Rumph, laboratory assistants, all of Philadelphia.

The work was done at nearby Wyndmoor, Pa., at USDA's Eastern Utilization Research and Development laboratory there. Eight other chemists, a bontanist, and four other laboratory aides took part in the research project which earned the group a Superior Service Award.

The project was started 10 years ago, shortly after the discovery of cortisone. Recognizing the need for more widely available sources of the new wonder drug than bile acids of cattle from which the drug was first made, the Department sent botanists around the world in search of plants containing compounds from which cortisone could be made.

Over 8,000 such plants have been found abroad and shipped to the Wyndmore laboratory. Efforts are now being made to grow some of these plants in the United States to reduce cost, as well as to prevent the country from being entirely dependent upon foreign sources.

It has been pointed out that domestic cultivation of such plants would give American farmers a new crop which could be planted on acres taken out of cotton, wheat, corn, and other surplus crops.

AWARD FOR RESEARCH — These three members of a 16-man research team of the US Department of Agriculture are looking at a Superior Service Award plaque presented the group recently for discovering in wild plants substances from which the wonder drug cortisone can be made. Cortisone is used in the treatment of arthritis and many other ailments. Left to right are: Harry A. Monroe, chemist, Robert O. Pierce and Walter Rumph, laboratory assistants. All live in Philadelphia and work in USDA's Eastern Utilization Research and Development Division at nearby Wyndmoor, Pa. — USDA Photo

NCC Prof.'s Finding Will Aid Science

DURHAM, N. C.—After several years of intensive research on the structure of the bacterial nucleus, Dr. James S. Lee, professor and chairman of the Department of Biology at North Carolina College, has announced the discovery of a new cyto-chemical reaction which makes it possible to 'look inside" of the bacterial nucleus.

Dr. Lee thus achieves the distinction of being the first person in the nearly 300-year history of the science of bacterilogy to observe and describe the internal structure of this minute part of the bacterial cell.

A cytochemical reaction is a chemical reaction which is made to occur in cells instead of test tubes. Dr. Lee's findings will be reported in a forthcoming article on "The Structure of the Bacterial Nucleus and its Cytological History in Sporogenous Aerobes."

This is no mean feat. The nucleus of the bacterial cell is generally somewhat less than 1/25,000 of an inch in diameter and is so small that several hundred could probably be placed in a space the size of the period at the end of this sentence.

Science-minded W. Carter a top student in many fields

RICHMOND

Wesley Byrd Carter, 17-year-old senior at Maggie Walker High School was a winner in the Virginia Science Talent Search and also took a third-place award in the biology exhibits of the Virginia Junior Academy of Science.

Recently too, he was among 13 senior winners at the Virginia Conference of Science and Mathematics Teachers held at Hampton Institute.

He had received honorable mention in the program of Science Achievement Awards for Students sponsored by the American Society for Metals, as conducted by the National Science Teachers Association.

* * *

WESLEY IS the son of Mr. and Mrs. Wesley T. Carter of 2729 Garland Ave. His father, a former teacher of science, now teaches math at Armstrong High School.

The youngster is considering entering Howard University, planning for a career in medicine.

During June commencement exercises at Maggie Walker High School, he will be presented an academic pin for scholastic achievement; and the Bausch and Lomb Science Award.

Wesley became interested in science at an early age, "probably because of my father's influence", he explains. He and his best friend were always building or concocting things.

* * *

IN ELEMENTARY school he sang with the choir, became president of a neighborhood social club, was elected vice-president of the Student Council, became active in the Boy Scouts, and played in the school orchestra.

In junior high he was again elected vice-president of the newspaper, chaplain of a public library club, chaplain of the audio-visual club, co-captain of the corridor patrol, member of Junior Honor Society:

Vice-president of the senior class, member of math and science club and member of Links' Little Theater.

He was one of the school's participants in the Mathematics and Science Teachers' Conference.

* * *

THE ACTIVE youngster learned to play tennis, went to summer camp, joined All Presbyterian Church, and was selected to play in the All-City Orchestra.

At graduation he won awards for achievement in scholarship, carpentry, citizenship, and conduct. He also received the Bell and Howell Audio-Visual Award.

* * *

IN SENIOR high school, he became interested in biology. He and two friends made a sound motion picture, "Biology In Action", as a class project.

Later he won first place in the district and honorable mention in the state biology quizzes.

He attended a local science workshop and last summer was selected to be a participant in the first Summer Science Training Program for high ability secondary school students at Morgan State College in Baltimore.

There, he was elected vice-president of the seminar and director of the Secondary School Summer Alumni Association.

* * *

CREDITING HIS biology teacher, Marvin Powell, as his inspiration for the past year and a half, Wesley has been working on tumor research projects.

He says, "In the first one, I hoped to inject a serum of foreign body cells into mice tumors to inhibit their growth.

"Consultation with Dr. Leone, director of tumor research at the Medical College of Virginia, caused me to realize that my project was biologically improbable so I began an ascites immunity project.

"I started this work at Morgan State College last summer. I have since worked under the guidance of research scientists at the Medical College of Virginia Tumor Research Laboratory."

* * *

"AT FIRST I worked at school but this past semester I was invited to work in the Medical College Laboratory.

"I entered my project in the Westinghouse Talent Search. Although I am not a finalist, the experience has been well worth the effort and I am continuing my research.

"I am planning to enter the project in various state conferences and in another national contest this spring.

* * *

HIS MOST pleasant and exciting experience came when research scientists at the Medical College of Virginia approved and commended his experiments in cancer research.

Wesley has received a physics award, a history award from the Richmond Junior Chamber of Commerce, a scholastic letter from his school, where he also plays with the marching band.

He holds membership in the National Honor Society and in the Boys' State and All-State Orchestra.

AT ALL Souls Church, Wesley is a member of the budget committee, the evangelistic committee, and president of the Senior High Fellowship.

Recently, he has become very active in the United Christian Youth Movement.

October Is Month For National Science Youth

October will again be National Science Youth Month this year in the United States, Department of Defense, Thomas Alva Edison Foundation, Engineering and Science Organizations, Junior Engineering Technical Society, Manufacturing Chemists Association, Inc. National Academy of Science-National Research Council, National Association of Manufacturers, National Aviation Education Council, National Committee for Careers in Medical Technology, National Merit Scholarships, National Science Foundation, National Science Teachers Association, New England Council, Oak Ridge Institute of Nuclear Studies, Science Service, Scientific Apparatus Makers Association, U. S. Air Force, U. S. Army and the Association of the U. S. Army and U. S. Navy.

Millions of students in the public, private and parochial secondary schools of the nation provide the nucleus of this emphasis on science activities of the new school year. Organization of science clubs and science fairs in all parts of the country will be stressed.

A calendar of events has been prepared and information assembled for those in local and regional organizations who wish to cooperate. This is the fifth year that October has been National Science Youth Month.

Interest in encouraging science-mindedness in America's students increases each year. Six additional agencies are cooperating in National Science Youth Month in 1960. These include: The American Heart Association, the American Institute of Biological Sciences, the American Pharmaceutical Association, the National Youth Conference on the Atom, the Optical Society of America and the Society of American Bacteriologists.

National organizations and activities continuing their support are: American Association for the Advancement of Science, American Cancer Society, American Chemical Society, American Dental Association, American Federation of Labor and Congress of Industrial Organizations, American Medical Association, American Veterinary Medical Association, B'nai B'rith Women, Chamber of Commerce of

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Fisk Chemistry Research Projects Of Varied Kinds

NASHVILLE, Tenn. — Chemistry research projects ranging from investigation of ways to reduce effects of radiation to possible leads on crippling multiple sclerosis are presently working on five research projects supported by grants from four national foundations.

One of the projects, involving an attempt to learn more about the cause of multiple sclerosis, is being done jointly with the University of Michigan. The northern University is furnishing the equipment being used and a part of the money needed, while Fisk supplies laboratory space and the remainder of the money.

The research on this project involves tests on blood and spinal fluid proteins in an attempt to locate differences in chemical composition of the proteins of normal and afflicted persons.

In the research on radioactive fallout, Dr. Massie reports some success in reducing effects of radiation on experimental animals if certain compounds are taken before the radiation occurs.

Another project involves research into the effects of other compounds on cancer tissues, which has shown "interesting" results, Dr. Massie says.

A probe into heart diseases is part of another experimental project. A group of undergraduates are at work synthesizing compounds of purines which may possibly be useful in heart disease work.

In the field of theoretical chemistry, several students are working on a study of the identity of products derived from gasoline, and others are studying unusual chemical structures.

A total of 11 students, both graduates and undergraduates, are participating in the research work, Dr. Massie said. The projects are supported by the National Cancer Institute, the Walter Reed Army Institute, the Petroleum Research fund, and the National Science Foundation.

Top Research Projects Now At Fisk U.

NASHVILLE, Tenn. — Chemistry research projects ranging from investigation of ways to reduce effects of radiation to possible leads on crippling multiple sclerosis are under way at Fisk University.

The Fisk chemistry department, directed by Dr. Samuel P. Massie, is presently working on five research projects supported by grants from four national foundations.

One of the projects, involving an attempt to learn more about the cause of multiple sclerosis, is being done jointly with the University of Michigan. The northern university in furnishing the equipment being used and a part of the money needed, while Fisk supplies laboratory space and the remainder of the money.

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In the research on radioactive fallout, Dr. Massie reports some success in reducing effects of radiation on experimental animals if certain compounds are taken before the radiation occurs.

Howard Professor Named One of Nation's 6 Best

Dr. Moddie Taylor cited by chemists

WASHINGTON

The Manufacturing Chemists' Association this week named a Howard University professor as one of the six top college chemistry teachers for 1960.

He is Dr. Moddie D. Taylor of 1505 Channing St., NE, a member of the College of Liberal Arts and Graduate School faculties at Howard since 1948.

Professor Taylor will receive the MCA Medal and Citation, as well as a $1,000 cash prize at the Association's annual meeting in White Sulphur Springs, W.Va. on June 9.

* * *

DR. TAYLOR, 48, is a native of Nymph, Ala., and a graduate of Lincoln University at Jefferson City, Mo. He holds both the master of science and doctor of philosophy degrees from the University of Chicago. Prior to coming to Howard, he served on the faculty at Lincoln.

During World War II Professor Taylor served as an associate rofessor of Chemistry at the University of Chicago during the development of the atomic bomb, and was cited by the War Department and Atomic Eenergy Commission for his work. He was a Ford Foundation fellow in 1952 and a J. Ernest Wilkins fellow in 1955.

His most recent book, "First Principles of Chemistry," D. VanNostrand Co. (1959) is used as a teaching text in several colleges.

* * *

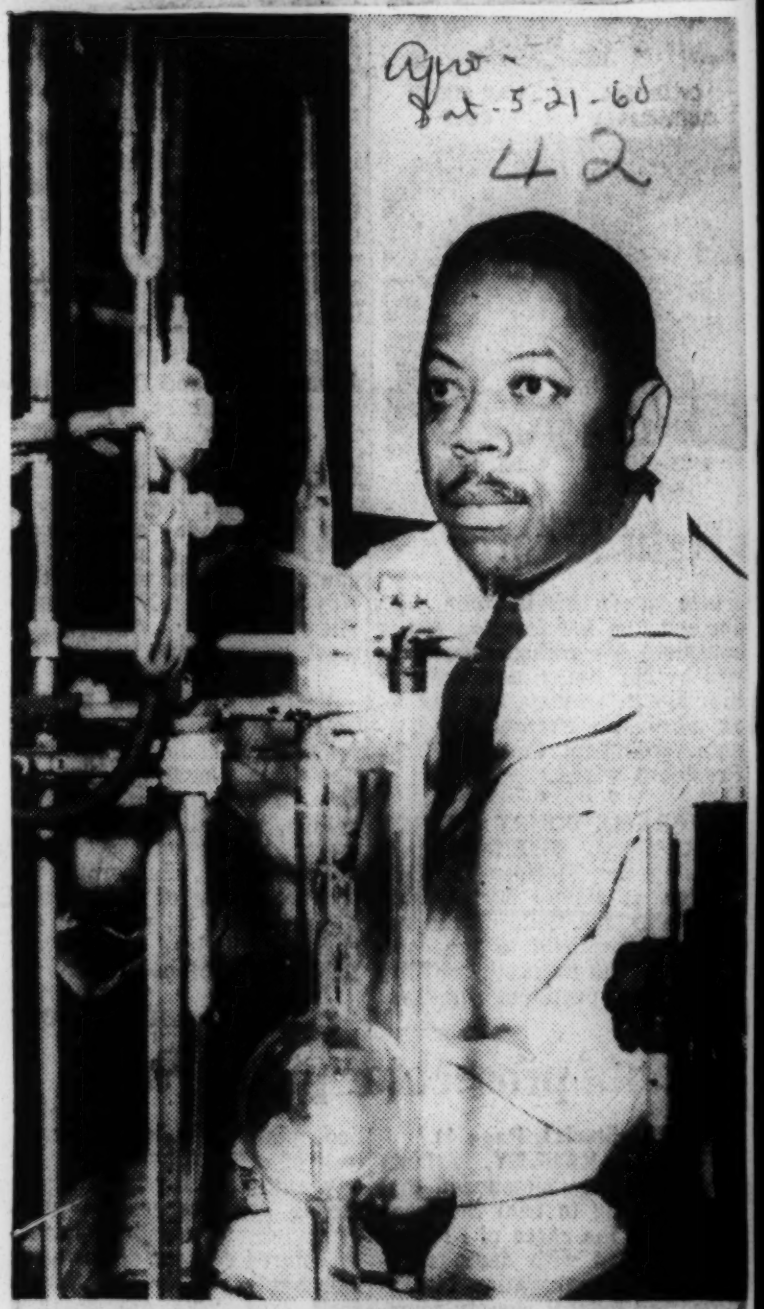
PROFESSOR TAYLOR currently is conducting research on three compounds — rare earth metal hydrides, borohydrides and benzoates. The study is being financed by a $23,000 grant from the National Science Foundation. In addition, he is serving as a visiting scientist for the Division of Chemical Education of the American Chemical Society. In this capacity, he lectures to students and teachers at colleges throughout the country.

The other recipients of 1960 MCA teaching awards include Professor Francis O. Rice of Georgetown University, Washington; Professor John De Vries of Calvin College, Grand Rapids, Mich.; Professor Reynold C. Fuson of the University of Illinois; Professor Ben Harrison Peterson of Coe College, Cedar Rapids, Iowa; and Professor Walter H. Stockmayer of the Massachusetts Institute of Technology.

Dr. Prestage is given $50,000 research grant

BATON ROUGE, La., — Dr. James Prestage, Southern University cytologist, has been commissioned by the United States Department of Health, Education and Welfare to conduct further studies in electron microscopy in his laboratory at Southern University.

The research grant of $50,807 covers a five year period. The bulk of the grant is allocated for the first year to purchase an electron microscope, which has already been installed, along with other special equipment required for electron microscopy. The remainder of the grant is to be used to replace consumable supplies over the next four years.



DR. MODDIE TAYLOR
Named one of six of America's best college chemistry teachers.

The Washington Post

F. O. RICE MODDIE D. TAYLOR

. . listed as top college chemistry teachers

The Washington Post
Washington, D.C.
Sat 5-7-60

2 District Professors Honored by Chemists

Two Washington college chemistry professors are among the six top college chemistry teachers chosen for 1960 by the Manufacturing Chemists' Association.

They are Moddie D. Taylor of Howard University's liberal arts and graduate school faculties and Francis O. Rice, chairman of the department of chemistry at Georgetown University. They will receive the Association's medals and $1000 cash prizes next month.

Taylor, a native of Alabama, has been at Howard since 1948. He is a graduate of Lincoln University in Jefferson City, Mo., and holds two graduate degrees from the University of Chicago. During World War II, he was an associate chemist at the University of Chicago during the development of the atomic bomb.

Taylor's book, "First Principles of Chemistry," published in 1959, is used as a text in several colleges. The professor is currently conducting research on three compounds in a study financed by a National Science Foundation grant. He also lectures at a number of colleges as a visiting scientist for the American Chemical Society.

Taylor lives at 1505 Channing st. ne.

Rice has been departmental chairman at Georgetown since last December. He joined the faculty in September, coming to Georgetown from Catholic University, where he taught from 1938 to 1959.

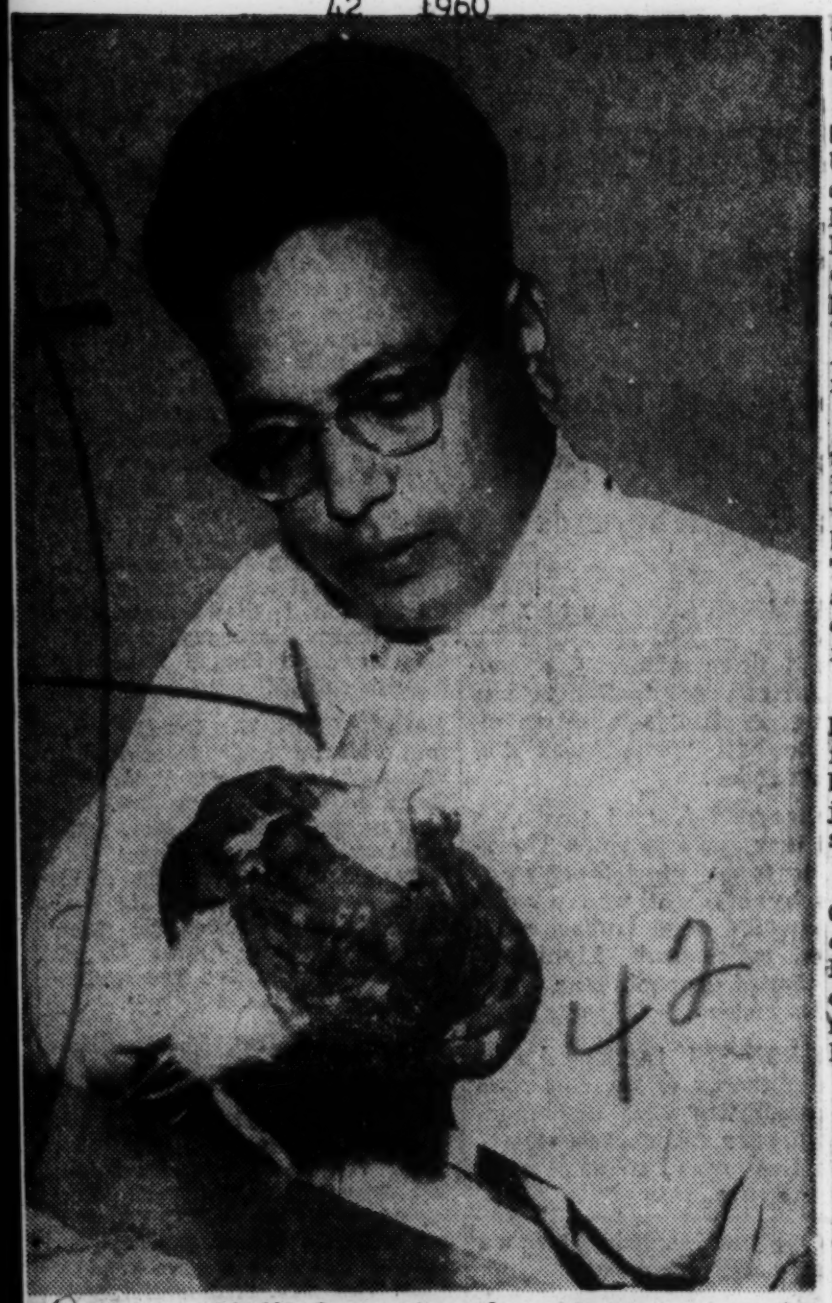
He is a native of Liverpool, England, and was graduated from the University of Liverpool in 1916. He worked in a British chemical plant during World War I and came to this country on a fellowship after the war.

He taught chemistry at New York University from 1919 to 1924 and at Johns Hopkins University from 1924 to 1938, when he joined the Catholic University faculty. Rice, who lives at 1302 Quincy st. ne., has published more than 80 research articles and is the author or co-author of three books on science.

Other award winners are John De Vries of Calvin College, Grand Rapids, Mich.; Reynold C. Fuson of the University of Illinois; B. Harrison Peterson of Coe College, Cedar Rapids, Iowa, and Walter H. Stockmayer of the Massachusetts Institute of Technology.

BUDDING SCIENTIST — Wesley Carter, senior at Maggie Walker High School looks over the certificate he won at the Virginia Junior Academy of Science's annual meeting with an exhibit attempting to produce a limited amount of immunity to carcinoma in mice.

42 1960



He'll Stay Another Year

Dr. Nityananda Pati, a native of India and research scientist at A. and T. College, last week was given extended time in which to complete important research in which he is now engaged. He had been informed earlier that he would have to leave the country upon expiration of his visa in August. He is examing a white rat.

Faced Return To India

Scientist Gets Another Year To Finish Project

GREENSBORO, N. C. — A India who does his work at A. and T. College will be able research scientist from far-off to remain in this country for another year.

Told three months ago that he would have to leave the United States in August because his visa had expired, Dr. Nityananda Pati of Calcutta, India, has been granted an additional year in which to complete a research project on which he has been engaged at A. and T. College for six months.

IF HE HAD been required to leave this summer, it would have interruped his research which aims at solving the problem of sterility in humans. The project, sponsored by A. and T. College, seeks to discover the effects of a vitamin in mammals.

As late as June, Dr. Pati had given up hope because friends of the college who had been working in his behalf had just about "thrown in the sponge," all except one.

HUBERT HUMPHREY Greensboro attorney, member of the North Carolina State Legislature and friend of the college of long standing, did not give up. He wrote countless letters, and spent much time on the telephone, communicating with congressmen, senators and the U. 'S. State Department.

His efforts and patience finally paid off when North Carolina Senator Sam Ervin wired that Dr. Pati's time had been extended by the State Department.

SINCE COMING to the States in 1955, Dr. Pati has completed two other research projects. He has discovered a drug which reduces infection in distemper in animals and he discovered new methods in artifical breeding of cattle now being widely used in several Western states.

He received his undergraduat training at the University of Calcutta and was later granted the doctor of veterinary science degree by that institution and in the United States he received the master of science degree from Tx- and the Ph.D. degree from North Carolina State College, both in physiology.

SCIENCE COURSE TAKEN

George O. Caldwell Jr. At Oak Ridge Institute

HOLLY SPRINGS, Miss., Aug. 13.—George O. Caldwell Jr., son of Mrs. V. B. Garret of 421-1 Lauderdale in Memphis, is receiving special science-education training at the Oak Ridge Institute of Nuclear Studies in Oak Ridge, Tenn.

Caldwell will provide special science services at Rust College here after the 13-week course. He is sponsored by the Oak Ridge lecture program by Rust College.

The course at Oak Ridge is supported by a National Science Foundation grant in co-operation with the Atomic Energy Commission.

Caldwell

Alabama College Professor To Research At Oak Ridge

MONTEVALLO — Dr. Paul C iley, chairman and professor biology at Alabama College, is le of 66 top scientists from the ation's colleges and universities elected for participation in the 960 summer research program ow under way at the Oak Ridge Institute of Nuclear Studies.

Bailey, a nationally prominent figure in the area of cancer research, joined 11 other outstanding biologists this week for research projects at the Oak Ridge National Laboratory's biology division.

Several leading biologists from Alabama institutions were selected to summer research posts with Bailey, including Charles B. Blair Jr., Birmingham - Southern College; Bimal C. Pal, Tuskegee Institute, and in the nuclear center's metallurgy division, Arnold E. Carden, University of Alabama.

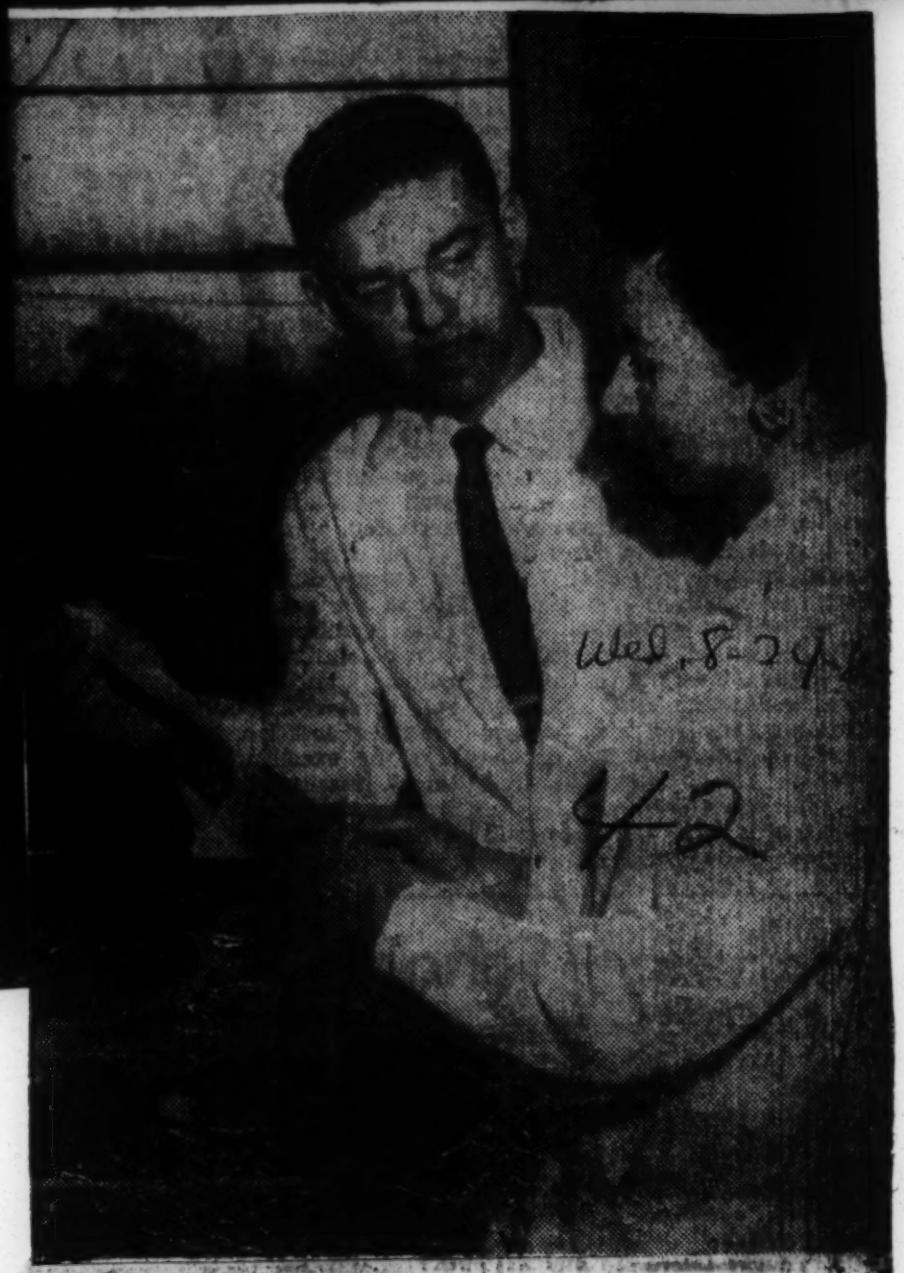
The program is administered by the Oak Ridge Institute of Nulcear Studies for the Atomic Energy Commission and is carried out at the center's three main divisions: The Oak Ridge National Laboratories, the ORINS Medical Divison and the University of Tennessee - Atomic Energy Commission Agricultural Research Laboratory.

Participants are brought to the institute for varying lengths of time, ranging from eight weeks to a year. In addition to medical and biological research, the visiting professors conduct experiments and studies in the various phases of chemistry, physics, engineering and mathematics.

Dr. Bailey's research project, which will be carried out over an eight-week period, is primarily in the area of cytology. Working with Dr. Sheldon Wolff, research biologist with ORINS, Bailey is conducting a series of experiments with ultra-violet rays and X-rays, studying their effects on living cells, and particularly on the chromosomes in the cells.

Bailey has conducted research for a number of years in this area and has had a number o reports published in newspaper and professional journals throughout the country. He is recognized as one of the leading scientists in the United States in the fight against cancer.

THE WHITFIELDS OF CHICAGO—Specialists and students in the related fields of medicine, pharmacy and bio-chemistry, members of this distinguished family pursue somewhat parallel careers, all devoted to the health and well-being of their fellow-man. Shown seated in the laboratory of their home are Harvey Whitfield, Jr., honor student at University of Illinois, specializing in medicine and bio-chemistry, and his mother, Mrs. Kate Whitfield, for 30 years chief pharmacist at Chicago's Provident Hospital; standing, left, Dr. Harvey Whitfield, Sr., nationally known urologist and member of the medical staff at Provident Hospital, and the Whitfield's daughter, Andrietta, now enrolled as a pre-medical student at University of Illinois. (ANP Photo)



RESEARCH SCIENTISTS—The Edwards, Dr. Gerald A. (left) and Dr. Cecile (right), are one of the two husband-wife research teams at A. and T. College working on projects which are exciting national and international attention. The project, "Utilization of Methionine by the Adult Rat," is being sponsored by the National Institutes of Health. Dr. Gerald Edwards is chairman of the Chemistry Department.

42 1960

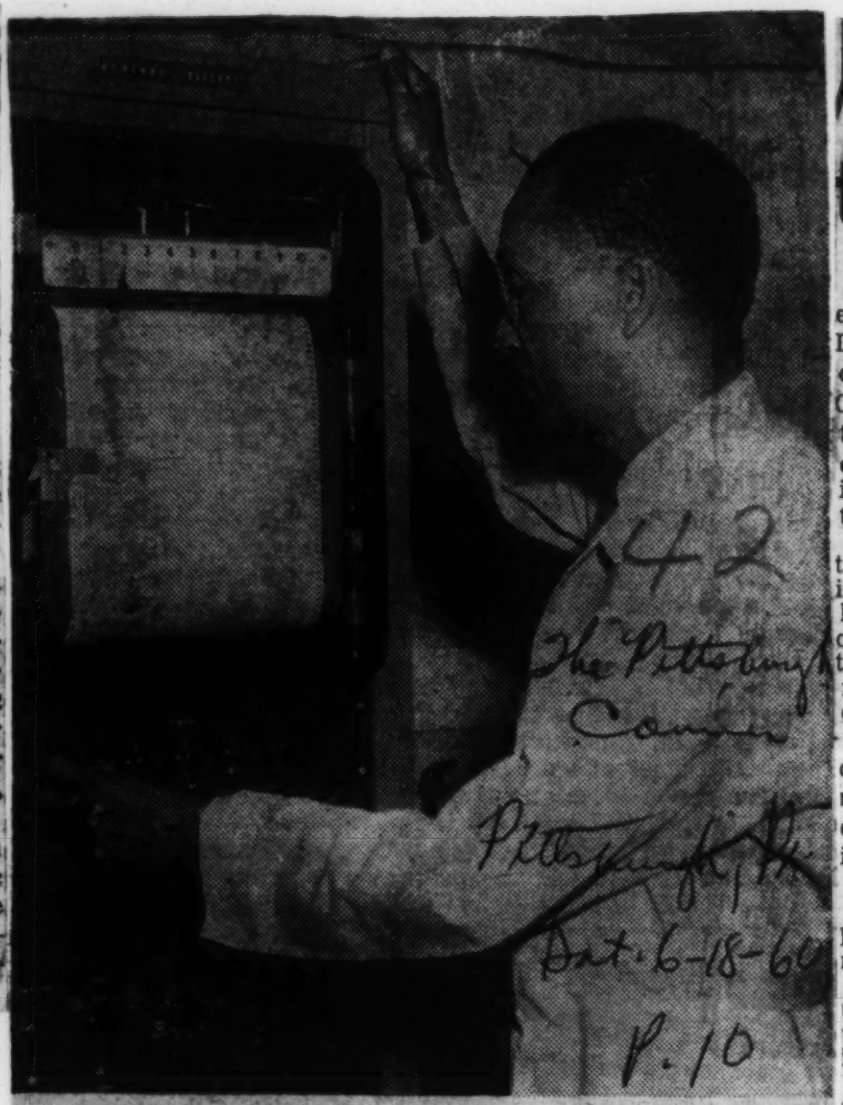
Research Funds Given To A&T

GREENSBORO, N. C. — A second Undergraduate Research Participation Program is to be sponsored at A&T college beginning this summer by the National Science Foundation.

Dr. Warmoth T. Gibbs, president, announced this week that the request for funds by the Department of Home Economics had been approved.

The new project will underwrite stipends of $540 each for three students in the Summer Program to be conducted for nine weeks, beginning June 12 and ending August 12, and for three others of $150 each under an Academic Year Program, beginning next September.

Upper class students from any college with high academic records and majoring in home economics, chemistry or biology are eligible to apply for admission under the program.



RESEARCH ASSOCIATE—Dr. Donald A. Edwards, chairman of the physics department at A&T College, has been named research associate this summer at the University of Pittsburgh to do special work in X-ray diffraction on metals. Dr. Edwards has done research work at the Oak Ridge National Laboratory in Tennessee for the past six summers.

NCC biologist discovers way to look inside bacterial cell

DURHAM, N.C. — After several years of research, Dr. James S. Lee, chairman of department of biology at North Carolina College, has announced the discovery of a new cytochemical reaction which makes it possible to "look inside" of the bacterial nucleus.

Dr. Lee thus achieves the distinction of being the first person in the nearly 300 - year history of the science of bacterology to observe and describe the internal structure of this minute part of the bacterial cell.

A cytochemical reaction is a chemical behavior which is made to occur in cells instead of test tubes. Dr. Lee's findings wll be reported in an artical on "The Structure of the Bacterial Nucleus and its Cytological History in Sporogenous Aerobes."

THE NUCLEUS of the bacterial cell is generally somewhat less than 1/25,000 of an inch in diameter and is so small that several hundred could probably be placed in a space the size of the period at the end of this sentence.

When his reactions were applied to the nucleus, Dr. Lee was able to show that there are small, self - duplicating bodies inside the nucleus.

Because these bodies are carefully distributed, one to each daughter cell during the process of cell division, they are thought to be the chromosomes which carry the hereditary characteristics in micro - organisms.

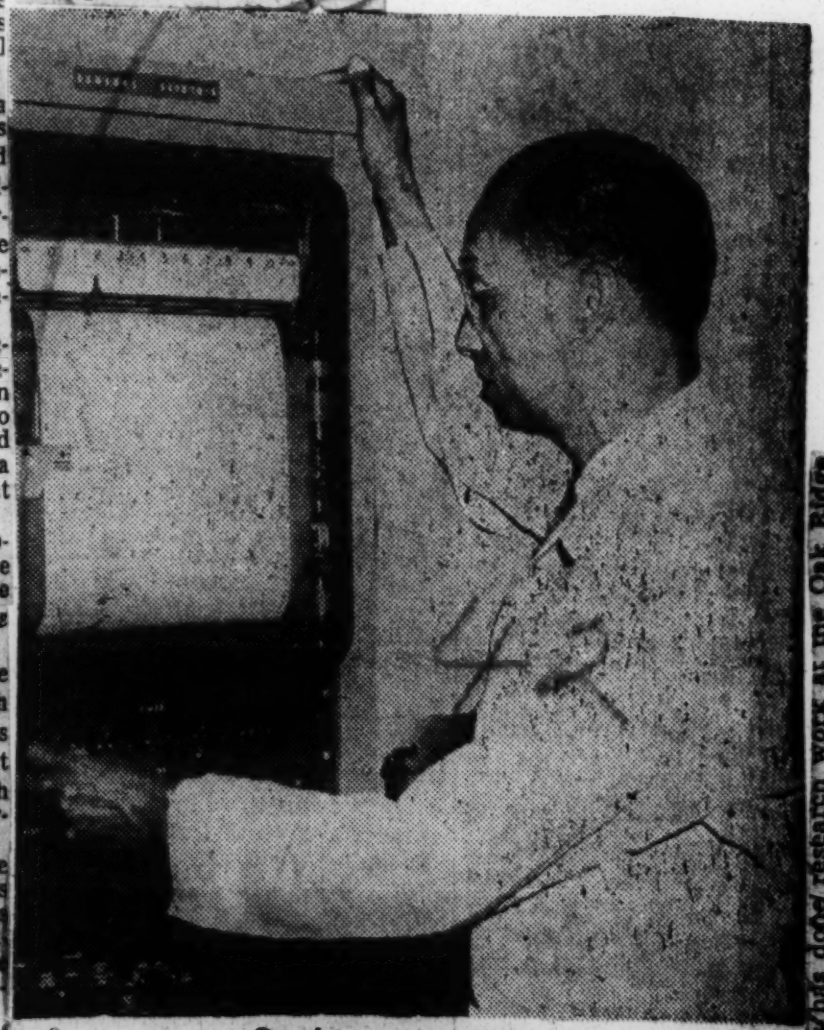
WHEN QUERIED as to the possible significance of his work, Dr. Lee stated that it is not possible to assess immediately the ultimate value to the various fields of microbiology.

He emphasized, however, that the techniques described are certain to become standard procedures and revolutionize the teaching of bacteriology in college and university laboratories throughout the world, since they will enable students to see the bacterial nucleus for the first time.

As guest lecturer, Dr. Lee discussed his work and its implications for the future study of the genetics of micro - organisms in the Genetics Seminar at N.C. State College in Raleigh on April 5.

This was the first public display of the first photographs showing the internal structure of the nucleus.

Dr. Lee is a graduate of Lincoln (Pa.) University, Pa., and received the M.S. and Ph.D. degrees from the University of Michigan.



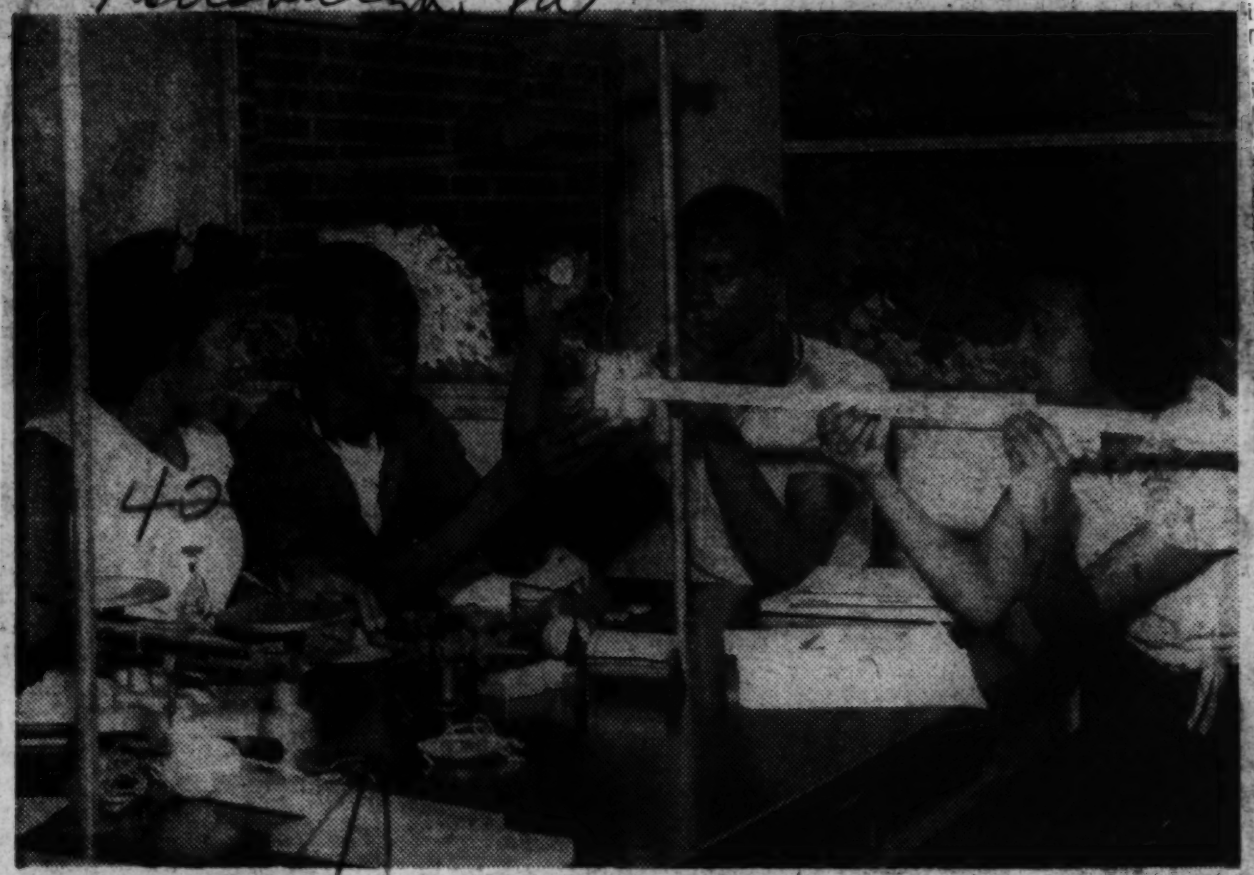
Seeking Answers

Dr. Donald A. Edwards, chairman of the physics department at A. and T. College in Greensboro, N. C., has been named research associate this summer at the University of Pittsburgh, to do special work in X-ray diffraction on metals.

He stands before the new X-ray diffraction unit recently purchased by the college. Dr. Edwards has done research work at the Oak Ridge National Laboratory in Tennessee for the past six summers.

Superior Students Attend Science Training Program

The Pittsburgh Courier
Pittsburgh, Pa.



SUPERIOR STUDENTS—Shown are a few of the 73 high school students of superior scholastic ability attending the second annual Summer Science Training program through July 31 at Knoxville College. The students are from 40 high schools in 13 states.

Sat. 7-2-60

KNOXVILLE, Tenn.—Seventy-three high school students of superior scholastic ability are attending the second annual Summer Science Training program, sponsored by the National Science Foundation, in session now through July 31 at Knoxville College.

The students from 40 different high schools represent a cross section of high ability students from 13 states; Alabama, Florida, Georgia, Louisiana, Mississippi, New York, North Carolina, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas and Virginia.

The program is geared to provide opportunities for a careful selected group of students who have a superior mental ability score and who have completed the 10th grade, but not entered college, by June 1960.

All participants have at least a "B" average in all high school English, science, and mathematics.

The students are able to increase their understanding of science and mathematics the courses are an extension of the experiences ordinarily taught in the high school courses in biology, chemistry, physics and mathematics.

Each student is required to take either biology, chemistry, physics and one of two mathematics courses from which he can profit most.

A lecture in each of the courses is conducted one hour daily during the eight-week period and eight hours a week for laboratory work.

An elective course, radioisotopes, is limited to students in the program who are enrolled in mathematics two and physics.

In addition to the science courses offered, the superior student may double his reading speed, increase his vocabulary, increase his comprehension and retention and thus learn more rapidly and thoroughly. This program is offered by the Knoxville College Reading Clinic and will be used by students who need this help most.

A&T Dean Appointed To National Science Foundation Panel

Nashville Tenn.
Nashville Tenn.

GREENSBORO, N. C.—

The dean of the school of Agriculture at A&T College has been named to National Science Foundation review board.

Dr. William E. Reed, Greensboro, who has headed the A&T School of Agriculture since 1949, accepted this week an appointment to serve as a panelist to review proposals in science education submitted to the National Science Foundation.

The panel to which Dr. Reed has been appointed will have the responsibility to judge the relative merits of the large number of proposals received by the Foundation.

The appointee has had three important foreign service assignments He served in Liberia for two years as soil scientist for the U. S. State Department in Ghana, West Africa, for two years as chief of a team involved with an assignment for the International cooperation Administration an dvisited Russian in 1955 as a member or an American farm delegation to observe agricultural practices in that country.

Negro American
Sat. 8/Nov 42
Pa

SCIENCE FINALS — Dr. Booker T. White, left, professor of chemistry and director of the A. and T. College summer program for high school students in science and mathematics, signs autograph books for some of the youngsters who participated in the program. Left to right Robert Hoffman, Mt. Gilead, N.C., Rosalind Reid, Columbus, Ga., and Gloria Carter, New Orleans, La.

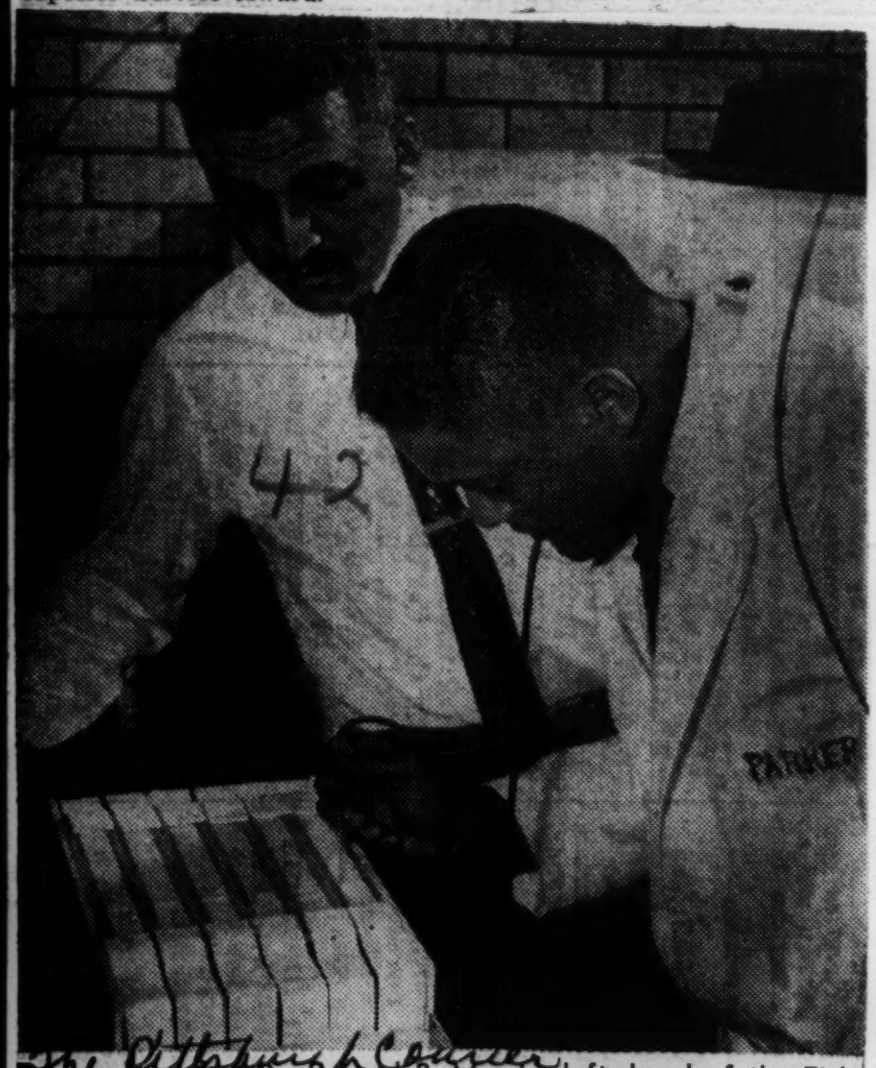
42 1960

ACROSS the DESK

NEGRO RESEARCHERS HONORED FOR WONDER DRUG WORK

WASHINGTON, D. C. (ANP)—Three Negro researchers of the U. S. Department of Agriculture were honored as part of a team of 16 who have found in wild plants new sources of cortisone and other hormone drugs used in the treatment of arthritis and other ailments.

The three researchers are Harry A. Monroe, a chemist; and Robert O. Pierce and Walter Rumph, laboratory assistants, all of Philadelphia. The work was done at nearby Wyndmoor, Pa., at USDA's Eastern Utilization Research and Development laboratory there. Eight other chemists, a botanist, and four other laboratory aides took part in the research project which earned the group a Superior Service Award.



Research— Dr. Samuel P. Massie, left, head of the Fisk chemistry department, looks on as graduate student Julius Parker prepares to test proteins distilled from spinal fluid serum on a machine borrowed from the University of Michigan. Parker is working on possible leads on the causes of multiple sclerosis.

Seeks Cause Of Disease

Dr. Samuel P. Massie, left, head of the Fisk University chemistry department, looks on as graduate student Julius Parker prepares to test proteins distilled from spinal fluid serum on a machine borrowed from the University of Michigan.

Parker is working on possible leads on the causes of multiple sclerosis.

Chemists At Fisk Probing The Unknown

NASHVILLE, Tenn. — Chemistry research projects ranging from investigation of ways to reduce effects of radiation to possible leads on crippling multiple sclerosis are underway at Fisk university.

The Fisk chemistry department, directed by Dr. Samuel P. Massie, is now working on five research projects srpported by grants from four national foundations.

ONE OF THE projects, involving an attempt to learn more abodt the cause of multiple sclerosis, is being done jointly with the University of Michigan which is furnishing the equipment being used and a part of the money needed, while Fisk supplies laboratory space and the remainder of the money.

The research on this project involves tests on blood and spinal fluid proteins in an attempt to locate differences in chemical composition of the proteins of normal and afflicted persons.

IN THE RESEARCH on radioactive fallout, Dr. Massie reports some success in reducing effects of radiation on experimental animals if certain compounds are taken before the radiation occurs.

Another project involves research into the effects of other compounds on cancer tissues, which has shown "interesting results, Dr. Massive says.

A PROBE INTO heart diseases is part of another experimental project. A group of undergraduates are at work synthesizing compounds of purines which may possibly be useful in heart disease work.

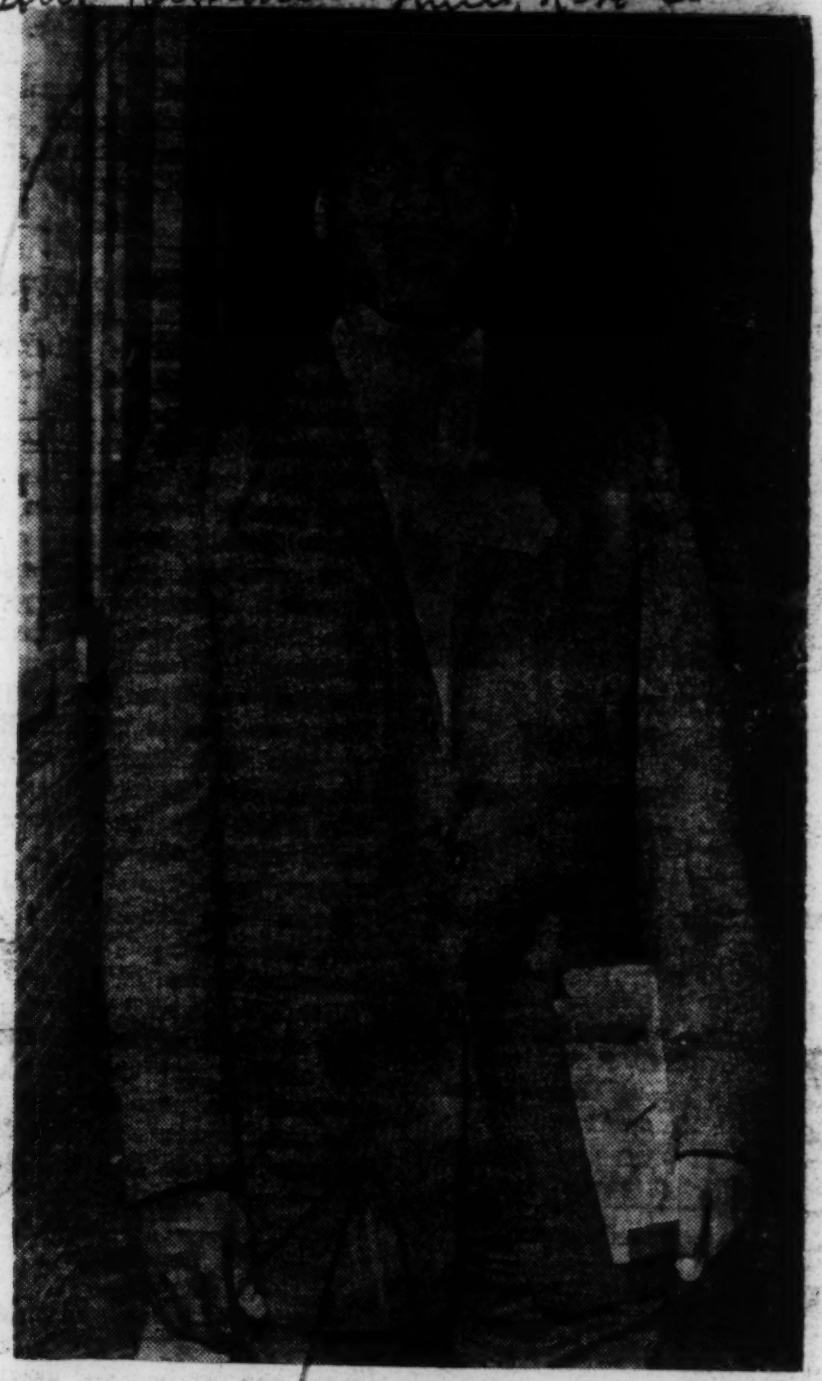
In the field of theoretical chemistry, several students are working on a study of the identity of products derived from gasoline, and others are studying unusual chemical structures.

GETS APPOINTMENT—William J. Gavin, a junior in engineering physics at A. and T. College, has received an appointment in the Summer Student Trainee Program of the Oak Ridge Institute of Nuclear Studies. He will work ten weeks in the Physics Division of the Oak Ridge National Laboratory, one of a select group of students from major colleges and universities.

A native of New Bern, N.C., Gavin is currently engaged as an undergraduate participant in a research program sponsored at the college by the National Science Foundation.

He is a member of the A. and T. Chapter of the American Institute of Physics, Alpha Kappa Mu Honorary Society, Beta Kappa Scientific Honorary Society, Alpha Phi Alpha Fraternity and was recently nominated for "Who's Who in American Colleges and Universities."

Southern Farm Scientist at Ia. State U



Emil W. Owens, of Houston, Tex., is pictured on the steps of the Memorial Union at Iowa State university. He was one of 100 leading farm scientists who attended a three-day conference on goals and values in agricultural policy at Ames last week. He and a friend were the only Negroes in the group. Owens, 36, holds a doctorate degree from Ohio State University.—**Photo courtesy of Fort Dodge Messenger.**

Owens grew up at Houston, the son of a railroad foreman. He served during World War II with the 777th Field Artillery seeing action in the European theatre, including participation in the Normandy invasion. He also served in the Philippines before being returned home with 30 per cent disability.

Prairie View

Heeding the urgings of education-conscious parents, Owens enrolled at Prairie View school, a branch of Texas A & M university and completed a bachelor of science degree and met his wife-to-be, a home economics major. They now have two boys and two girls.

Ohio State

Having completed his studies, Owens enrolled at Ohio State university. In three years of study he maintained an A-average and was the first Negro to be admitted into a campus honorary scholastic fraternity. Owens, now holds a doctorate degree from Ohio State with major studies in Produce marketing in Horticulture.

Government Financed

After completing his doctorate studies, Owens repaid the government which had financed his entire education, by accepting two years of Liberia under sponsorship of the International Cooperation administration.

"Of course, I was well paid for my services, but I sincerely felt I owed something to the government for my education. Also, I wanted to help the people of Liberia who are descenddants of Negro slaves from this country. My job was that of technical advisor in horticulture, but my real job was serving as an unofficial ambassador," Owens said.

Southern Farm Scientist Attends Iowa State Meet

Ames, Ia.—Emil W. Owens, 36, a southern farm scientist from Houston, Tex., and a friend last week were the only Negroes among 100 distinguished educators from America and Canada who attended a three-day conference on agricultural policy and goals at Iowa State University here.

TAKE PART IN ATOM CONFERENCE—Two Negro teenagers will take part in the National Youth Conference on the Atom in Chicago on Oct. 20-22, when America's brightest young science students convene for a first-hand glimpse of the peaceful uses of the atom. At left is Robert L. Marks, 17, of Philadelphia, while at right is Jon Davis Smith, 15, of East Orange, N.J. They were selected to attend on the basis of their outstanding exhibits at the Greater Newark Science Fair and Delaware Valley Science Fair. Marks' project at the science fair at Franklin Institute, was an oscilloscope, a machine which visually shows a varying electric current. Smith built a binary digital computer, a machine made to add, subtract, multiply and divide electronically in binary numbers.

Two Negro Teen-Agers To Conference On Atom

NEW YORK. — Two Negro teenagers will take part in the National Youth Conference on the Atom in Chicago on October 20-22, when America's brightest young science students convene for a first-hand glimpse of the peaceful use of the atom.

Jon Davis Smith, 15, of 88 Carnegie Ave., East Orange, N. J., and Robert L. Marks, 17, of 1417 North 61 Street, Philadelphia, Pa., were selected to attend on the basis of their outstanding exhibits at the Greater Newark Science Fair, respectively.

Both boys are being sponsored to the conference by their local investor-owned electric utility and were chosen over hundreds of other candidates. Smith, one of the youngest delegates to the conference took first place honors in mathematics by building a binary digital computer, a machine made to add, subtract, multiply and divide electronically in binary numbers.

Marks has been interested in science projects since elementary school and has experimented extensively in electronics. His project, which captured the attention of the judges at the science fair held at the Franklin Institute, Philadelphia, was an oscilloscope, a machine which visually shows a varying electric current.

The three-day conference will be held at Chicago's Museum of Science and Industry where some of America's most eminent scientists will address the group of youths and their science teachers. Dr. Lowell Coggleshall, dean of biological sciences at the University of Chicago, will keynote the conference. Dr. A. Adrian Albert, chairman of Chicago University's department of mathematics and chairman of the mathematics section of the National Academy of Science will speak as will Dr. Norman Hilberry, director of the Argonne National Laboratory; Dr. Robert Wilson, Atomic Energy Commissioner; and Dr. Luis W. Alvarez, professor of physics and associate director of the Lawrence Radiation Laboratory, University of California.

Along with other delegates from 38 states, Smith and Marks will engage in small group discussions with scientists from Argonne, University of Chicago, and the Illinois Institute of Technology. They will tour Dresden Nuclear Power Station, a full-scale privately financed atomic power plant, the Museum of Science and Industry and Argonne National Laboratory.

The first general session will open with a discussion of "Today's World of Science" and other conference sessions will be on the themes, "The Atom and Electricity, Biology and Medicine" and "Atomic Frontiers."

Speeches at the conference, sponsored by 61 investor-owned electric utilities, will be on a scientific rather than a popular level in view of the outstanding achievements of the 300 boys and girls attending.

Smith and Marks, who will be meeting at the conference for the first time, have much in common in addition to their scientific interests. They are photography buffs and ham radio enthusiasts and both have won varsity letters at their high schools, Smith in basketball and Marks in cross-country and track. Both plan to be electronic engineers after graduation from college.

42 1960

DR. LLOYD A. HALL

DISTINGUISHED SCIENTIST — Dr. Lloyd A. Hall, right, is making the acquaintance of Los Angeles business and community leaders since his recent retirement to live in Pasadena from his post as technical director of Griffith Laboratories, in Chicago.

Regarded as an outstanding chemical engineer, Dr. Hall recently received an honorary membership award from the American Institute of Chemists. He continues to serve industrial firms as a consultant chemist.

He is shown here with Mitchell B. Miles, a director of Safety Savings and Loan association during a visit to the firm's building and offices at 2638 S. Western.

First Spingarn Award

The Pittsburgh Courier

Dr. Just's Genius Transcended Race

Pittsburgh Pa

Apr 2-22-60

ON FEB. 12, 1915, at Ethical Cultural Hall, New York City, 32-year-old Ernest Everett Just, a Howard University professor still seeking the Ph.D. degree from the University of Chicago, was presented the first Spingarn Medal.

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It was not until a year later that he gained the doctorate but those who nominated him for the honor were indeed wise Gauged by the sheer standards of international scholarship, no American of any identity has yet excelled the lofty respect attained by this South Carolina-born biologist.

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In 1915 he was standing on the threshold of a career unlike any enjoyed by an American Negro of letters, since or before.

A Phi Beta Kappa man at Dartmouth College, where he graduated in 1907, by 1915 he had completed four of six research papers, based upon his experiments at the Marine Biological Laboratories, Woods Hole. It was his unprecedented performance, far removed from the realm of most Negro intellectuals, that put him out front, as a budding [illegible]

THOUSANDS of dollars were provided to have him engage in research activities, as soon as his work was annually done at Howard. His brilliance led to invitations to lend his talents to the Kaiser Wilhelm Institute fur Biologie, at Berlin, Germany; at the Sorbonne, in France, and the Mariene Station, Naples, Italy.

The most distinguished co-founder of a Negro fraternity (Omega Psi Phi), 1911, Dr. Just never stopped urging promising Negro youngsters forward.

Years afterward, when he insisted that ". . . the cytoplasm and the cortex (of the human cell) are equally important with the nucleus, in the developmental process," he had taken that one step beyond—into a [illegible]

DR. EDWARD E. JUST

. . . immortal at 32

Five foundations saw that he was vested with research funds, year after year, during which he published two books and wrote more than 60 scientific articles.

In 1915, the Spingarn Award selectors had set an impossible standard— since his successors rarely matched his race transcending magnificence, the true test of sustained intellectual effort.

world biologists could move with a fathomless assurance.

At his death, in the early '40's, he was destined to be a quarter of a century ahead of any biological contemporary, anywhere on earth. He was primarily concerned with the developmental process of organisms, and his main thesis was that the process itself is conditioned by the fundamental structure of the cell.

■

HERE WAS A MAN whose achievements ridiculed those in which a Negro scholar is able to measure talents, as a Negro among Negroes. He was not merely a Negro biologist, measuring mental wave length with a mere Negro college president, or a Negro leader—he was a biologist, the supreme biologist of his type and closer to the scientific "mystery of life" than any man of his time.

Dr. Samuel P. Massie Joins The Staff Of National Foundation

Nashville Tenn.

DR. SAMUEL P. MASSIE, professor of chemistry and chairman of the department at Fisk University, has joined the staff of the National Science Foundation as associate program director for advanced science education, Special Projects in Science Education.

In this role, Dr. Massie will have charge of programs relating to Visiting Scientists, college, high school and foreign visitors, Research Participation Programs for High School Teachers and Supplementary Programs in Science Education.

Dr. Massie has been given a leave of absence from his post at Fisk University for this position.

Dr. Massie brings to the Foundation several unusual and interesting experiences.

For four years he was a member of the Committee on Visiting Scientists in Chemistry, and for the last two fears, he served as national chairman, supervising a program involving in 1959 over $85,000 and 130 scientists visiting almost 300 schools.

As a Visiting Scientist, he visited the following institutions: Central State, Northwestern State and Phillips University in Oklahoma, Fullerton Junior College in California, Colorado State College at Greeley, Lycoming and Westminister Colleges in Pennsylvania, Kansas State College at Emporia and Morgan State College.

From 1954-1957 he was national secretary of the Committee on Institutes and Conferences in Chemistry and for the past seven years he has directed Institutes and Conference.

In 1954, he served as assistant director at Kenyon (Ohio); in 1955 he co-directed with John Baxter of Continental Classroom, the Sixth Chemistry Conference at Fisk; in 1956 he co-directed a conference at Southern (Louisiana); in 1957 he co-directed an institute at New Mexico Highlands University and in 1959 and 1960 he directed Institutes for Teachers at Fisk. He also directed in 1960 a program for gifted high school students at Fisk.

He has lectured at Institutes at Texas Southern University, A. & T. (North Carolina) College, Knoxville College, Dillard University, Carleton College, University of Detroit and in August, 1960, he served as Visiting Professor and guest lecturer at the Institute at Colorado State in Greeley.

From 1955-7, he served as a member of the Examination Committee in Chemistry for the Advanced Placement Test, College Entrance Examination Board.

In 1956 he was Sigma Xi Lecturer at Swarthmore. In 1959 he was opening night speaker before the New England Association of Chemistry Teachers and 1959-60 he gave seminars at Vanderbilt and the University of Kansas.

His research interests have included studies on drugs, dyes and reaction mechanisms. In 1955 he was a participant in the 14th International Congress of Pure and Applied Chemistry in Zurich, Switzerland, where he read a paper on his cancer research.

During the past six years he has received grants from the National Cancer Institute, American Cancer Society, Upjohn Drug Company, National Science Foundation, Smith-Kline French Foundation, the petroleum Research Fund and the Army. His research on drugs has been largely concerned with cancer, tranquilizers, multiple sclerosis and anti-radiation drugs.

DR. SAMUEL P. MASSIE

In 1938, he served as President of the Oklahoma Academy of Science. From 1956-9 he was National President of Beta Kappa Chi Scientific Society. He is a member of Sigma Xi, Phi Lambda Upsilon, National Institute of Science and is listed in American Men of Science.